(c) a second attachment site adjacent to second end for connecting said tube to a butt section.

12. The kit of claim 11 wherein said kit further comprising an augmenting element securable to an interior position within the hollow tube, said augmenting element being selected from the group comprising: a weight and a stiffening member; wherein placement of said augmenting element tailors an operational characteristic of the hollow tube.

13. The kit of claim 11 wherein placement of said augmenting element in the interior position within the hollow tube is determined by a locator.

A marked revision of the revised claims pages is also enclosed.

REMARKS

By the foregoing amendments and these remarks it is submitted that the objection in the office action have been overcome.

Amendments to Claims 1, 10 – 13

In response to Examiner's rejections and for clarity, Applicant has amended the language of claim 1 by substituting the following for part "a" thereof:

> "a. a single-piece tapered hollow tube having a first end and a second end, the tube having an exterior providing a substantially smooth surface, the tube having a wall capable of self-support;"

and has further amended the language of claim 10 by inserting the words "single-piece tapered" after the word "a" in its first occurrence in that claim, and by likewise inserting the word "single-piece tapered" after the word "a" in its first occurrence in claim 11 (thus in each claim the hollow tube component is a "single-piece tapered tube"). The dependencies of claims 12 and 13 have also been corrected. Accordingly, claims 1-13 remain pending herein.

(s.102(b) rejection) of Claims 1-4, 8, 9, 11-13

In the Office Action, the Examiner rejected claims 1-4, 8, 9, and 11-13 under 35 U.S.C. 102(b) as being anticipated by Wolpert in US1,560,456 ("Wolpert"). In particular, the Examiner states

that Claims 1, 2, 4, 8, 9, 11 and 12 are "clearly anticipated", and additionally that "shank 15" in Wolpert might be considered the "locator" in Applicant's claims 3 and 13.

Applicant respectfully disagrees for the reasons set forth below:

(s.102(b) rejection) of Claims 1-4, 8, 9, 11-13

a. Wolpert discloses a billiard cue made from a series of decreasing-diameter metallic tubes joined one to the other, thus effecting a multi-component metallic tube structure with a diameter to effect a stepped taper in the tube's diameter from one end to the other. The Wolpert design requires a plurality of metal tubes each one of even diameter, each small tube section being slightly different in diameter from the next, and joined to each other by what Wolpert calls "reduced couplings" constituted in the described embodiment as internally threaded and mating externally threaded tubing segments. Wolpert teaches that evenly tapered tubes were (at least at that time) not useful as they were either unobtainable in a useful form, or very expensive to obtain and not uniform in manufacture, thus not reliable.

(s.102(b) rejection) of Claims 1-4

b. Applicant's claims 1-4 describe a single hollow metallic tube, which in some embodiments have stiffener or locator parts. Elsewhere, notably at page 5, line 6, the preferred embodiment's tube is described as "a hollow, tapered, tube", and although non-tapered tubing might be used, it would not be preferred as not being in a configuration usual or useful as a tapered pool or billiard cue. (More on claim 3, below).

(s.102(b) rejection) of Claim 8

c. Applicant's claim 8, it is submitted, includes the addition of a weight rather than the Wolpert weighting method of removing or leaving suitable amounts of overlapping tubing (Wolpert lines 39-41 and claim 3), or the addition of a weight element to the butt-end of the cue (Wolpert's claim 7). None of these elements anticipates or describes the solution in Applicant's invention which is:

inserting and locating a weight at a customizable place within the interior of a hollow metallic tapering tubular cue tip section.

(s.102(b) rejection) of Claim 9

d. Applicant's claim 9 is dependant upon claim 1, and on the basis that claim 1 is believed allowable for the reasons above, it is submitted that claim 9 is patentably distinguished from Wolpert.

(s.102(b) rejection) of Claims 11-13

e. Applicant's claims 11-13 deal with a kit for customizing a tip section including a single hollow metallic tube segment attachable or retro-fittable to a previously manufactured cue. Accordingly, it is respectfully submitted that these claims do not deal with the Wolpert-style multi-stepped segmented cue and, as a result, it is submitted that Wolpert does not anticipate these claims for this reason and for the reasons set out above.

In summary, Applicant respectfully submits that, since Wolpert's design specified a stepped-diameter, multi-part tubing structure that the apparatus and invention of Wolpert do not anticipate this invention, as this invention specifies a single-piece tapered tube segment as the tip section.

Moreover, Applicant respectfully submits that, in fact, Wolpert teaches away from the subject single piece tube. That is, Wolpert's invention addressed a different problem from the subject invention, namely the problem of providing a metal billiard cue (in the form of a hollow metallic tube, the reduction in diameter of which from one end to the other being gradually effected by the "step-down" diameter effect gained by joining a series of tube segments of progressively smaller diameter together) in order to avoid problems of wooden construction (warpage, wear, inconsistent manufacture, etc.). This was to overcome the shortfall in then-available (1920's) materials and manufacturing technologies and an incapacity of obtaining reliable and inexpensive evenly-tapered, single part, metallic tubing of useful characteristics (see Wolpert column 1, lines 21-31).

(s.102(b) rejection) of Claims 3 and 13 (by Wolpert shank 15)

The Examiner states that Applicant's claims 3 and 13 are anticipated by Wolpert on the basis that the end of shaft 15 in Wolpert can be considered the "locator" in Applicant's claims.

Applicant respectfully disagrees as shaft 15 in Wolpert does not function as a weight or stiffening element- locator (that is, a means of fixing the location within the tubing structure of a weight or a stiffening element) as described in Applicant's claims 3 and 13. The function of shaft 15 in Wolpert is to serve as an attachment point for the Wolpert cue's soft tip, while the "locator" in Applicant's invention serves to fix the location within the hollow tube of the weighting or stiffening element to affect the performance characteristics of the cue in a designed way. Therefore, in addition to having a different tubing structure from Wolpert (and since claims 3 and 13 are dependent upon claims which Applicant believes are in a condition for allowance), the difference in the nature and purpose of Wolpert's shaft 15 is sufficiently different in function, purpose, and design to not anticipate the "locator" in Applicant's claims 3 and 13.

(s.102(b) rejection) of Claim 5

In the Office Action, the Examiner takes the position that Applicant's claim 5 is anticipated (s.102(b) rejection) by Barrett in US1,705,353 ("Barrett") by, it is presumed, providing a hollow cue structure with an internal stiffener (the distinguishing part of Applicant's claim 5).

Applicant submits that Barrett discloses a slideably moveable weighting and balancing adjustment within a metal core 11 within the butt section of a wooden shaft, the metal core being reinforcing in the nature of providing journaling and wear-reinforcement against which the sliding weight can be moved and positioned by turning the threaded rotatable internal shaft 17. This does not resemble the stiffening member located within Applicant's hollow metal tubular tip structure either in form or in described function. Neither the core 11 in Barrett nor the slideably adaptable weighting system in Barrett provides the elements of Applicant's invention. Barrett provides a multi-walled tube with wooden exterior and reinforcing interior, with a key or journal in the interior metallic tube and within which is deployed a slideable but non-rotatable weight which cannot therefore be snug fitted. This means the interior diameter of the core 11 cannot be tapered, which weight then slides responsive to the threaded shaft 17 being rotated remotely, causing the weight to move longitudinally within the core 11 of the Barrett cue.

In contrast, Applicant's invention provides a cue-tip section with a locator means to permanently and solidly affix a stiffening element within the cue's hollow tip structure at a designed spot within that structure in order to effect a tailored, desired change to the performance characteristics of the Applicant's cue on an essentially "one-time" customization basis.

Applicant therefore submits that Barrett does not anticipate Applicant's claim 5, as the Barrett invention provides a solution to a different problem, the method of doing so (adjustable weight

and balance) is not permanent and would be relatively loosely fitted (as opposed to fixed or affixed on a substantially permanent or one-time basis), and any stiffening effect of the internal working in Barrett are not "tunable" (that is, the journalled slide is not capable of being manipulated, and does not perform the function of adjustably stiffening the cue's tip section).

(s.103(a) rejection) of Claims 6 and 7 by Wilson

In the Office Action, the Examiner makes the suggestion that Applicant's claims 6 and 7, with regard to the characteristics of a stiffening member, are made obvious by reading Wilson US818,597 ("Wilson").

Applicant draws the Examiner's attention to Wilson's "e" component, which is not described so as to function as a stiffener, but rather as a fastening device to provide for removability of the cue's soft tip from the cue's composite tip (part "b") by threaded fastening means hidden within the tip's structure, and a stiffening function, if provided, would not have been a required characteristic. It is probable that the Wilson's "e" component would have ideally changed none of the characteristics of the cue other than to provide ease of mounting and demounting the cue's soft tip.

In contrast, Applicant's stiffening member is deployed to add stability or stiffness, to counter flex or compressibility, to the tip-segment of the hollow metal cue tip's structure in a customizable way, and not to add convenient fastening functionality. The Examiner's proposition that Wilson's fastener component "e" might add stiffening features is not disclosed. Additionally, the Wilson invention did not address the issue of user-customizable stiffness or compressibility.

Reconsideration of claim 5 in view of these remarks is therefore requested.

(s.103(a) rejection) of Claim 10 by Wolpert

In the Office Action, the Examiner makes an assertion that Applicant's claim 10 insofar as it mentions "chrome-plated steel" as a suitable material, is obvious in light of Wolpert's claimed smooth exterior surface. Applicant submits that the additional characteristics of Applicant's tubes being manufactured of a specific type of material with structural characteristics in addition to the desired polished exterior finish found in some chrome-plated steel tubing, are significantly different from Wolpert's cue material and design, and indeed in light of the Examiner's "judicial notice" of the smooth character of chrome-plated steel, and thus not obvious in the sense of s.103(a).

Chrome-plated steel tubing, in addition to having a smoothly finished exterior provides suitable evenly-tapered dimensions capable of self-support and providing a suitable interior dimension to receive and mount a locator, a weight, a stiffener and a mounting means, and thus its inclusion does not form the basis for a s.103(a) rejection of Applicant's claim 10. This is particularly true in light of the amendments to claim 10.

In conclusion, it is respectfully submitted that the Examiner's rejections contained in the Office Action have been overcome, and that the application is in a condition for allowance.

Respectfully submitted,
John W. Andrews

By: _____
Andrew R. Hicks
Reg. No. 39,468
Borden Ladner Gervais LLP
100 - 100 Queen Street
Ottawa ON K1P 1J9
Canada
Tel: (403) 232-9717
Fax: (403) 266-1395
E-mail: ipinfo@blgcanada.com

ARH/MRW/ldk/trn
Enclosures
1. Petition for Three Month Extension of Time
2. Power of Attorney
3. Revocation of Appointment of Agent
3. Marked Revised Claims
4. Fee Transmittal
5. Transmittal Form

MARKED UP VERSION OF AMENDED CLAIMS SHOWING CHANGES MADE

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A tip section for customizing a cue stick, the tip section comprising:

   (a) a single-piece tapered hollow tube having a first end and a second end, the tube having an exterior providing a substantially smooth surface, the tube having a wall capable of self-support;

   (b) a first attachment site adjacent to said first end for connecting said tube to a cue tip; and

   (c) a second attachment site adjacent to said second end for connecting said tube to a butt section.

2. The tip section of claim 1 further comprising an augmenting element securable to an interior position within the hollow tube, said augmenting element being selected from the group comprising: a weight and a stiffening member;

   wherein placement of said augmenting element tailors an operational characteristic of the hollow tube.

3. The tip section of claim 2 wherein placement of said augmenting element in the interior position within the hollow tube is determined by a locator.

4. The tip section of claim 1 wherein the hollow tube is composed of a metal selected from the group consisting of: lightweight steel, polished aluminum, magnesium alloy and stainless steel.

5. The tip section of claim 1 wherein said augmenting element is a stiffening member secured to an interior position within said hollow tube.

6. The tip section of claim 5 wherein said stiffening member is between 1 and 10 inches long.

7. The tip section of claim 6 wherein said stiffening member is composed of a material selected from the groups consisting of wood, plastic, high-tensile metal, lightweight steel, aluminum, magnesium alloy and stainless steel.

8. The tip section of claim 1 wherein said augmenting element is a weight secured to an interior position within said hollow tube.

9. The tip section of claim 1 wherein the substantially smooth surface of the tube is selected of the group comprising: chrome-plating, polished aluminum, titanium, high-gloss finish, polishing.

10. A tip section for customizing a cue stick, the tip section comprising:

(a) a single-piece tapered hollow, chrome-plated steel tube having a first end and a second end, a hollow tube having a first end and a second end, the tube having a wall capable of self- support;

(b) a first attachment site adjacent to said first end for connecting said tube to a cue tip;

(c) a second attachment site adjacent to second end for connecting said tube to a butt section;

(d) an augmenting element securable to an interior position within the hollow tube, said augmenting element being selected from the group comprising: a weight and a stiffening member;

wherein placement of said augmenting element in the interior position within the hollow tube is determined by a locator,

wherein placement of said augmenting element tailors an operational characteristic of the hollow tube.

11. A kit for customizing a tip section of a cue stick, the kit comprising:

(a) a single-piece tapered hollow tube having a first end and a second end, the tube having an exterior providing a substantially smooth surface, the tube having a wall capable of self- support;

(b) a first attachment site adjacent to said first end for connecting said tube to a cue tip; and

(c) a second attachment site adjacent to second end for connecting said tube to a butt section.

12. The kit of claim ~~8~~ 11 wherein said kit further comprising an augmenting element securable to an interior position within the hollow tube, said augmenting element being selected from the group comprising: a weight and a stiffening member;

wherein placement of said augmenting element tailors an operational characteristic of the hollow tube.

13. The kit of claim ~~9~~ 11 wherein placement of said augmenting element in the interior position within the hollow tube is determined by a locator.